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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,340	07/22/2003	Gerald K. Hein		8601

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David M. Mundi, Esq.  
Cook Alex McFarren Menzo Cummings & Mehler, Ltd.  
Suite 2850  
200 West Adams Street  
Chicago, IL 60606

EXAMINER

MCKINNON, TERRELL L

ART UNIT PAPER NUMBER

3753

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/625,340	HEIN, GERALD K.	
	Examiner	Art Unit	
	Terrell L. Mckinnon	3743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bright et al. (U.S. 4,716,494) in view of Moore (U.S. 4,575,038).

Bright discloses a retention system for removable heat sink comprising:

- a heat sink member attached to a semiconductor integrated

circuit which is part of an integrated circuit board assembly;

- an attachment element positioned on the mounting member for receiving and releasing the heat sink;
- the heat sink is received by the attachment element, a thermal resistance path is established from the integrated circuit the mounting member;
- permitting heat to be conveniently removed from the integrated circuit;
- the attachment element is a spring clip having two opposing inwardly directed end portions for holding the heat sink;

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- the heat sink comprises two flange portions joined together by an intermediate portion of less cross-sectional area than the flange portions;
- one of the flange portions can be moved into firm engagement between the end portions of the clip and the adjacent surface of the mounting member;
- the heat sink is permanently attached to the integrated circuit on the integrated circuit board assembly;
- the flange portions are circular and the intermediate portion is cylindrical;
- the flange portions are each larger than the intermediate portion sufficient to permit the heat sink to be conveniently engaged by the end portions of the spring clips against the adjacent engage surface of the mounting member.

Bright fails to disclose a mounting member connected to or part of a chassis portion of the electronic equipment; the mounting member includes two spaced opposed openings through which the end portions of the clip extend, and wherein the spring clip has a central which is on the opposite side of the mounting member from portion the two end portions when the spring clip is operatively positioned on the mounting member; the mounting member is insertable into the equipment chassis in a relationship therewith; the mounting member comprises a part of the equipment chassis; the mounting member includes an embossed area on a surface thereof

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adjacent the end portions of the operatively positioned spring clip; the end portion each include corner parts which flare downwardly from the end portions; and the embossed area includes a lubricant.

However, Moore teaches a member (10) connected to or part of a chassis portion of the electronic equipment (column 3, lines 39-50); the mounting member includes two spaced opposed openings through which the end portions of the clip extend, and wherein the spring clip has a central which is on the opposite side of the mounting member from portion the two end portions when the spring clip is operatively positioned on the mounting member; the mounting member is insertable into the equipment chassis in a relationship therewith; the mounting member comprises a part of the equipment chassis; the mounting member includes an embossed area on a surface thereof adjacent the end portions of the operatively positioned spring clip; the end portion each include corner parts which flare downwardly from the end portions; and the embossed area includes a lubricant.

Given the teachings of Moore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the retention system for removable heat sink of Bright with a mounting member connected to or part of a chassis portion of the electronic equipment; the mounting member includes two spaced opposed openings through which the end portions of the clip extend, and wherein the spring clip has a central which is on the opposite side of the mounting member from portion the two end portions when the spring clip is operatively positioned on the mounting member; the mounting member is insertable into the equipment chassis in a

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relationship therewith; the mounting member comprises a part of the equipment chassis; the mounting member includes an embossed area on a surface thereof adjacent the end portions of the operatively positioned spring clip; the end portion each include corner parts which flare downwardly from the end portions; and the embossed area includes a lubricant.

Doing so would provide an alternate arrangement for cooling electronic heat generated devices.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following references cited on the USPTO 892 discloses related limitations of the applicant's claimed and disclosed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terrell L. Mckinnon whose telephone number is 571-272-4797. The examiner can normally be reached on Monday -Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennett can be reached on 571-272-4791. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Terrell L McKinnon  
Primary Examiner  
Art Unit 3743  
October 3, 2005